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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,577	08/22/2005	Klaus Godl	JCLA 16061	8370
7590		01/05/2007		
J.C. Patents Suite 250 4 Venture, Irvine, CA 92618			EXAMINER KHANNA, HEMANT	
			ART UNIT 1654	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/523,577

Applicant(s)

GODL ET AL.

Examiner

Hemant Khanna

Art Unit

1654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-93 is/are pending in the application.
- 4a) Of the above claim(s) 51,52,59-71,76-89,92 and 93 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-58,72-75 and 90 is/are rejected.
- 7) ☒ Claim(s) 91 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/8/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Appendix A (Consideration of Inventorship Change)

DETAILED ACTION

1. Applicant's election with traverse of claims 53-58, 72-75, and 90-91 that belong to Group V in the reply filed on October 27, 2006 is acknowledged. The amendment to claims 53, 54, 57-58, and 72 to correct their dependency from base claim 90 in view of withdrawal of the originally filed base claim 51, is acknowledged.

The traversal is on the ground(s) that the inventions in the instant application while containing claims to different categories, have unity of invention because the claims are drawn to a product, a process specially adapted for the manufacture of the said product, and a use of the said product (page 47, paragraph 5, Remarks). Further the Applicants clarify the "standard" for applications filed under the PCT, i.e. the standard of "unity of invention" applies (page 46, Remarks), under which multiple inventions can be pursued in a single application, as long as the inventions possess the same technical feature. The Applicant's identify the special technical feature in the eleven unrelated compound classes as being that capable of immobilization on solid support materials via primary amines (page 46, paragraph 4, Remarks). Further, in the inventive groups drawn to the methods, the Applicant's identify the special technical feature as the method steps (a)-(c), which renders a general inventive concept which should be allowed in the instant application.

The Applicant's arguments are not found persuasive. While the applicant rightfully points out a "standard" for determining the basis for applying the unity of invention, the Examiner respectfully submits that in a national stage application, an applicant is allowed a combination of a single product, a single process, and a single

use of the said product. Further, in accordance with Markush practice, as the compounds represented by the general formula I-XI only share only a common property i.e. "capable of immobilization on solid support materials via primary amines", while not sharing a significant structural element that is essential to the common property, the compounds render themselves to a plurality of inventive groups of which only a single inventive group is allowed. The Applicant is reminded of the rejoinder of the method claims upon allowance of any product claims.

The Applicant's also argue the species election by submitting that a skilled artisan would deduce based on chemical theories, the non-elected substituents of the general formula V according to the elected substituents.

The Applicant's arguments are not found persuasive. The search for Group V encompasses searching a plethora of molecules represented by the general formula V with an unspecified combination of substituents. Because the species are distinct, searching every species would be burdensome. The Applicant is reminded that upon allowance of the generic claim, the applicant will be entitled to consideration of claims to additional species, which are written in dependent form or otherwise include all the limitations of an allowed generic claim. MPEP 809.02(a).

Based on the above arguments, the restriction for Groups I-XXIV is maintained.

The requirement is still deemed proper and is therefore made FINAL.

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Applicant's elected the species that reads on claims 90-91, 53-58, and 72-75, wherein the compound is compound G as the completely defined single general formula defined by the group V. Applicant's species has been found free of the prior art.

In accordance with Markush practice, should no prior art be found that anticipates or renders obvious the elected species, the search was extended to other species in claim 90 which stands rejected under 35 USC 103 as set forth below.

Claims 53-58, 72-75, and 90-91 have been examined on the merits.

Claims 51-52, 59-71, 76-89, 92-93 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **with** traverse in the reply filed on October 27, 2006.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) based on an application filed in Europe on July 29, 2002 and December 23, 2002. It is noted, however, that applicant has not filed a certified copy of the both 02018840.7 and 0202880.9, applications as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 90, 53-58, 72-75 rejected under 35 U.S.C. 103(a) as being unpatentable over Hennequin et al. (WO 2000047212) in view of Knockaert et al. (Chemistry and Biology (2000) Vol. 7: 411-422), Lochmuller et al (Separation Science and Technology (1987) 22: 2111-2126), and Smith et al (USPN 6,027,945).

The claims are drawn to a medium for separating at least one ATP binding protein from a pool of proteins, the medium comprising at least one compound of the general formula V, wherein the support material comprises agarose or ferromagnetic particles and wherein the pool of proteins is a proteome or cell lysate and wherein the ATP binding protein is a protein kinase. The claims are further drawn to a kit comprising the medium.

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With respect to claim 90, 53, 57-58, Hennequin et al disclose a compound with registry number 288384-46-3, that is encompassed by the general formula V, wherein X_a is $-O-$; l, o, and p = zero; R_1 is a halosubstituted aryl or C_1 alkoxy; $n = 3$; X_c is $-NH-$, and Y is $-SO_2CH_3$.

Hennequin differs from the instant claim 90, 53, 57-58, by not reciting a medium for separating an ATP binding protein from a pool of proteins, and wherein the support material comprises agarose.

With respect to claim 90, 53, 57-58, Knockaert et al disclose that it is known in the art to immobilize cyclin-dependent kinase inhibitors (ATP binding protein), wherein the inhibitor is coupled to an agarose matrix (third paragraph, page 412).

In view of the above teachings, it would have been obvious to one of ordinary skill in the art to remedy the deficiency of Hennequin with the medium of Knockaert by immobilizing the compound of Hennequin for the preparation of a binding medium with the known and expected result of providing a means to enrich a pool of cellular proteins with ones that only bind to the medium, such as kinases (third paragraph, page 412).

With respect to claims 54 and 56, Hennequin et al disclose as discussed above.

With respect to claims 54 and 56, Lochmuller et al disclose that it is known in the art to immobilize inhibitors (trypsin) onto a support material that comprises a ferromagnetic material coated onto beads.

With respect to claim 56, Smith et al disclose that it is known in the art to develop a medium using silica magnetic particles, wherein the magnetic particles are incorporated into a silica gel (SiO_2) matrix (column 6, lines 20-45).

In view of the above teachings, it would have been obvious to one of ordinary skill in the art to remedy the deficiency of Hennequin with the teachings of Lochmuller and Smith, for the known and expected result of providing a means recognized in the art for the inexpensive magnetic separation of biological material that is amenable to automation (Smith et al, column 7, lines 5-20).

With respect to claim 55, and in view of the teachings of Lochmuller and Smith et al it would be obvious to one of ordinary skill at the time of the invention to optimize the physical characteristics, such as size and surface area of the magnetic particles because such variables are art recognized variables that are routinely optimized to provide effective binding capacity and elution efficiency to the particles for separating and/or enriching biological materials, such as ATP binding proteins.

With respect to claims 72-75, and in view of the teachings of Knockaert et al, it would be obvious to one of ordinary skill at the time of the invention to package the medium, the sample preparation solutions, the medium wash solutions, the sample loading solutions, and the sample eluting solutions in a kit for the known and expected result of providing a means to store or transport such materials for the purpose of affinity chromatography of ATP binding proteins.

Allowable Subject Matter

6. Claim 91 is allowable as it is free of the prior art.

Claim Objections

7. Claim 91 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hemant Khanna whose telephone number is (571) 272-9045. The examiner can normally be reached on Monday through Friday, 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on (571) 272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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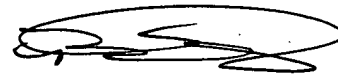
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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hemant Khanna Ph.D.
December 12, 2006



B. DELL CHISM
PRIMARY EXAMINER

In view of the papers filed 13 November 2006, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by the addition of INVENTOR: Dirk BREHMER, Grafelfing, GERMANY.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

HK/bdc

A handwritten signature in black ink, appearing to read "B. Dell Chism", enclosed within a hand-drawn oval border.

B. DELL CHISM
PRIMARY EXAMINER